### ATTORNEY DOCKET NO. 24U03.1-071 PATENT

#### **REMARKS**

Claims 18-21 and 89 are pending in this application. Claims 1-17 and 22-88 have been cancelled. Claims 90-104 have been previously withdrawn from consideration.

Claims 18 and 20 have been amended to be dependent upon claim 89. Support for the amendments can be found in original claims 18 and 20 as well as original claims 1 and 17. The amendments do not introduce new matter.

Claims 1-4, 6-9, 11, 13-15, 17-21, and 89 are objected to for containing non-elected subject matter which is outside the scope of the elected Group I. Pending claims 18-21 and 89 are within the scope of Groups I. Therefore, Applicant respectfully request the objection be withdrawn.

In the event of allowance of claims 18-21 and 89, Applicant requests rejoinder and allowance of withdrawn claims 90-104.

#### Rejection under 35 USC § 102(b)

The Office Action asserts that claims 1-4, 6-9, 17, 19, 21, and 89 are anticipated by Chambers *et al.* under 35 USC § 102(b). Enclosed for the Examiner's convenience is a copy of Chambers *et al.* 

Claim 89 recites "wherein when  $Y^1$  and  $Y^2$  are different groups, the stereochemistry at carbon a is either R or S." When  $Y^1$  and  $Y^2$  are different groups (e.g.,  $Y^1$  is hydrogen and  $Y^2$  is hydroxyl), the compounds recited in claim 89 are not racemic but enantiomerically pure. Examples of enantiomerically pure compounds covered by claim 89 can be found in Table 1 of the specification at pages 13 and 14, where Z is  $CF_2$ ,  $Y^1$  is hydrogen, and  $Y^2$  is hydroxyl or  $-OC(O)C_{17}H_{33}$ . In these examples, the position of  $Y^1$  and  $Y^2$  are fixed. The two possible enantiomers of formula I recited in claim 89 are provided below.

5

## ATTORNEY DOCKET NO. 24U03.1-071 PATENT

$$X^1$$
 $X^1$ 
 $X^2$ 
 $X^1$ 
 $X^2$ 
 $X^1$ 
 $X^2$ 
 $X^1$ 
 $X^2$ 
 $X^2$ 
 $X^2$ 
 $X^2$ 
 $X^2$ 
 $X^2$ 
 $X^3$ 
 $X^4$ 
 $X^2$ 
 $X^3$ 
 $X^4$ 
 $X^2$ 
 $X^4$ 
 $X^4$ 
 $X^2$ 
 $X^4$ 
 $X^4$ 

In summary, claim 89 recites enantiomerically pure compounds and not racemic compounds.

Chambers *et al.* discloses the synthesis of difluoromethylenephospohonate analogues of glycerol-3-phosphate. Referring to scheme 1 of Chambers *et al.*, compound **8** is the compound that according to the Office Action anticipates claim 89. Upon closer review of the synthesis of compound **8**, this compound is a racemic mixture and not an enantiomerically pure compound as recited in claim 89. Compound **8** in Chambers *et al.* is produced by the acid-catalyzed ring opening of the oxirane **7**. Under these reaction conditions, the ring-opening of the epoxide ring is not stereospecific. Indeed, the specification at page 42, line 5 to page 48, line 20 as well as Figure 5 provide detailed procedures for making enantiomerically pure difluoro compounds recited in claim 89. Therefore, the diol compound **8** is a racemic mixture and not an enantiomerically pure as depicted below.

$$(EtO)_2PCF_2$$

$$OH$$

$$racemic$$

$$(EtO)_2PCF_2$$

$$OH$$

$$racemic$$

$$(EtO)_2PCF_2$$

$$OH$$

$$OH$$

$$enantiomerically pure$$

Therefore, because Chambers *et al.* (1) does not disclose enantiomerically pure compounds and (2) does not disclose or provide a means to prepare enantiomerically pure compounds, Chambers *et al.* cannot anticipate claim 89.

6

# ATTORNEY DOCKET NO. 24U03.1-071 PATENT

The Examiner is invited and encouraged to directly contact the undersigned if such contact may enhance the efficient prosecution of this application to issue. No fee is believed to be due; however, the Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment to Deposit Account No. 50-1513.

Respectfully submitted,
GARDNER GROFF
GREENWALD & VILLANUEVA, P.C.

/Lawrence A. Villanueva/
Lawrence A. Villanueva, Reg. No. 43,968

GARDNER GROFF GREENWALD & VILLANUEVA, P.C. Customer Number 23506